

AMENDMENT**IN THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application. Where claims have been amended and/or canceled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer, and Assignee reserves the right to claim this subject matter in a continuing application:

1. (Previously Presented) A scanning device, comprising:

an application specific integrated circuit, wherein the application specific integrated circuit is adapted to:

receive an even data value obtained from an even-numbered pixel of the scanning device and an odd data value obtained from an odd-numbered pixel of the scanning device;
perform a computation using the even data value, the odd data value and a preset value to produce an even compensation value and an odd compensation value;
average the even compensation value and the odd compensation value to produce an averaged odd-even compensation value; and
compensate an even-numbered pixel value and an odd-numbered pixel value obtained from the scanning device by using the odd-even compensation value.

2. (Previously Presented) The scanning device of claim 1, wherein the scanning device further includes:

an image memory unit coupled to the application specific integrated circuit for holding a plurality of image data values; and

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an input/output interface coupled to the application specific integrated circuit for accessing the image data values.

3. (Currently Amended) The scanning device of claim 1, wherein the scanning device further includes:

an alternative-sensing device, wherein the alternative-sensing device performs a plurality of alternate scanning operations on a document ~~an~~ and sequentially obtains a plurality of alternately scanned pixels; and

an analogue/digital converter coupled to the alternative-sensing device for digitizing the alternately scanned pixel data in analogue format into even data values and odd data values and transferring the even data values and the odd data values to the application specific integrated circuit.

4. (Previously Presented) The scanning device of claim 1, further comprising:

a linear sensing device, wherein the linear sensing device performs a plurality of linear scanning operations on a document and sequentially obtains a plurality of linearly scanning pixels; and

an analogue/digital converter coupled to the linear sensing device for digitizing the linearly scanned pixel data in analogue format into even data values and odd data values and transferring the even data values and the odd data values to the application specific integrated circuit.

5. (Previously Presented) A method of performing a scanning operation, comprising:

receiving an even compensation value for compensating an even-numbered pixel and an odd compensation value for compensating an odd-numbered pixel; and

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averaging the even compensation value and the odd compensation value to produce an averaged odd-even compensation value; and

using the odd-even compensation value to compensate an even-numbered pixel value and an odd-numbered pixel value.

6. (Cancelled)

7. (Previously Presented) The method of claim 5, wherein the even-numbered pixel value and the odd-numbered pixel value are obtained substantially by a process comprising:

performing a plurality of alternate scanning operations on a document to obtain values corresponding to a plurality of alternately scanned pixels; and

digitizing the alternately scanned pixel values into even data values and odd data values; and

providing the even data values and the odd data values to the an application specific integrated circuit.

8. (Previously Presented) The method of claim 5, wherein compensating the even-numbered pixel value and the odd-numbered pixel value comprises adding a corresponding odd-even compensation value to the even-numbered pixel value and the odd-numbered pixel value.

9. (Currently Amended) A method, comprising:

receiving a shading value obtained from a compensation procedure for an even-numbered pixel and an odd-numbered pixel of a scanning device;

producing an odd-even shading compensation value by use of the even-numbered pixel shading value and the odd-numbered pixel shading value; and

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using the odd-even shading compensation value to ~~compensate~~ perform shading compensation for an even-numbered pixel value and an odd-numbered pixel value obtained from a scanning operation.

10. (Currently Amended) The method of claim 9, wherein the even-numbered pixel value and the odd-numbered pixel value are obtained substantially by a process comprising:

performing a plurality of alternate scanning operations on a document to obtain shading values corresponding to a plurality of alternately scanned pixels; and

digitizing the alternately scanned pixel shading values into even data values and odd data values; and

providing the even data values and the odd data values to the an application specific integrated circuit.

11. (Currently Amended) The method of claim 9, wherein compensating the even-numbered pixel value and the odd-numbered pixel value comprises adding a corresponding odd-even shading compensation value to the even-numbered pixel value and the odd-numbered pixel value.

12. (Currently Amended) An apparatus, comprising:

circuitry adapted to receive a shading value obtained from a compensation procedure for an even-numbered pixel and an odd-numbered pixel of a scanning device;

circuitry adapted to produce an odd-even shading compensation value by use of the even-numbered pixel shading value and the odd-numbered pixel shading value; and

circuitry adapted to ~~compensate~~ perform shading compensation for the an even-
numbered pixel value and the an odd-numbered pixel value obtained from a scanning
operation.

13. (Previously Presented) The apparatus of claim 12, further comprising:

an image memory unit adapted to hold a plurality of image data values; and
an input/output interface adapted to access the image data values.

14. (Currently Amended) The apparatus of claim 12, further comprising:

an alternative-sensing device adapted to perform a plurality of alternate scanning
operations on a document and sequentially obtain a plurality of values from alternately scanned
pixels; and

an ~~analog/digital~~ analogue/digital converter coupled to the alternative-sensing device
adapted to digitize the alternately scanned pixel values in ~~analog~~ analogue format into even
data values and odd data values and transfer the even data values and the odd data values to
said circuitry to receive a value.

15. (Currently Amended) The apparatus of claim 12, and further comprising:

circuitry adapted to perform a plurality of alternate scanning operations on a document
to obtain values corresponding to a plurality of alternately scanned pixels;

circuitry adapted to digitize the alternately scanned pixel values into even data values
and odd data values; and

circuitry adapted to provide the even data values and the odd data values to the an
application specific integrated circuit.

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16. (Currently Amended) The apparatus of claim 12, wherein ~~compensating the even-numbered pixel value and the odd-numbered pixel value performing shading compensation~~ comprises adding a corresponding odd-even shading compensation value to the an even-numbered pixel value and the an odd-numbered pixel value obtained from a scanning operation.